TO: ALL HOLDERS OF OUTBOARD LEADING EDGE SLAT DRIVE POWER DRIVE UNIT ASSEMBLY
COMPONENT MAINTENANCE MANUAL 27-81-83

REVISION NO. 3 DATED NOV 01/00

HIGHLIGHTS

Pages which have been added or revised are outlined below together with the highlights of the revision. Remove and insert the affected pages as listed and enter Revision No. and date to the Record of Revision Sheet.

CHAPTER/SECTION AND PAGE NO.	DESCRIPTION OF CHANGE
101 901	Updated the dash numbers for the test equipment A27079.
102 902	Replaced the Dytronics voltmeter which is no longer available.

BOEING

COMPONENT
MAINTENANCE MANUAL

OUTBOARD LEADING EDGE SLAT DRIVE POWER DRIVE UNIT ASSEMBLY

PART NUMBER 256T5505-1 THRU -3

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

KQ7046

REVISION RECORD

- Retain this record in front of manual. On receipt of revision, insert revised pages in the manual, and enter revision number, date inserted and initial.

REVISION NUMBER	REVISION DATE	DATE FILED	BY	REVISION NUMBER	REVISION DATE	DATE FILED	BY

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
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SPECIAL TOOLS					
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*[1] Special instructions not required. Use standard industry practices.

*[2] Not Applicable.

INTRODUCTION

The instructions in this manual provide the information necessary to perform maintenance functions ranging from simple checks and replacement to complete shop-type repair.

This manual is divided into separate sections:

1. Title Page
2. Record of Revisions
3. Temporary Revision & Service Bulletin Record
4. List of Effective Pages
5. Table of Contents
6. Introduction
7. Procedures & IPL Sections

Refer to the Table of Contents for the page location of applicable sections.

The beginning of the REPAIR section includes a list of the separate repairs, a list of applicable standard Boeing practices, and an explanation of the True Position Dimensioning symbols used.

An explanation of the use of the Illustrated Parts List is provided in the Introduction to that section.

All weights and measurements used in the manual are in English units, unless otherwise stated. When metric equivalents are given they will be in parentheses following the English units.

Design changes, optional parts, configuration differences and Service Bulletin modifications create alternate part numbers. These are identified in the Illustrated Parts List (IPL) by adding an alphabetical character to the basic item number. The resulting item number is called an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless otherwise indicated.

Verification:

OUTBOARD LEADING EDGE SLAT DRIVE POWER DRIVE UNIT ASSEMBLY

DESCRIPTION AND OPERATION

1. Description

   A. The outboard leading-edge slat-drive power-drive-unit assembly has a power control unit, a control valve module, a gearbox, a hydraulic motor and an electric motor. The components are bolted together to form the full power drive unit.

2. Operation

   A. The power drive unit uses a hydraulic motor (normal system) and an electric motor (alternate system) to operate the slat drive system.

   B. Movement of the cockpit flap control lever operates the pilot input arm of the control unit which positions a valve in the control valve module. The control valve module gives two-directional control during normal operation and hydraulic fluid bypass through a motor operated valve when the alternate drive system is engaged. Operation of the hydraulic motor turns the gear train in the gearbox which turns the output shaft. The gearbox also moves a follow-up cam in the control unit which closes a control valve in the control module when the selected flap position is reached.

   C. Manual arming of the alternate electrical slat drive system from the cockpit operates a bypass valve in the control module, preventing hydraulic motor operation. The electric motor performs the same function as the hydraulic motor to drive the slat drive system.

3. Leading Particulars (Approximate)

   A. Length -- 16 inches

   B. Width -- 21 inches

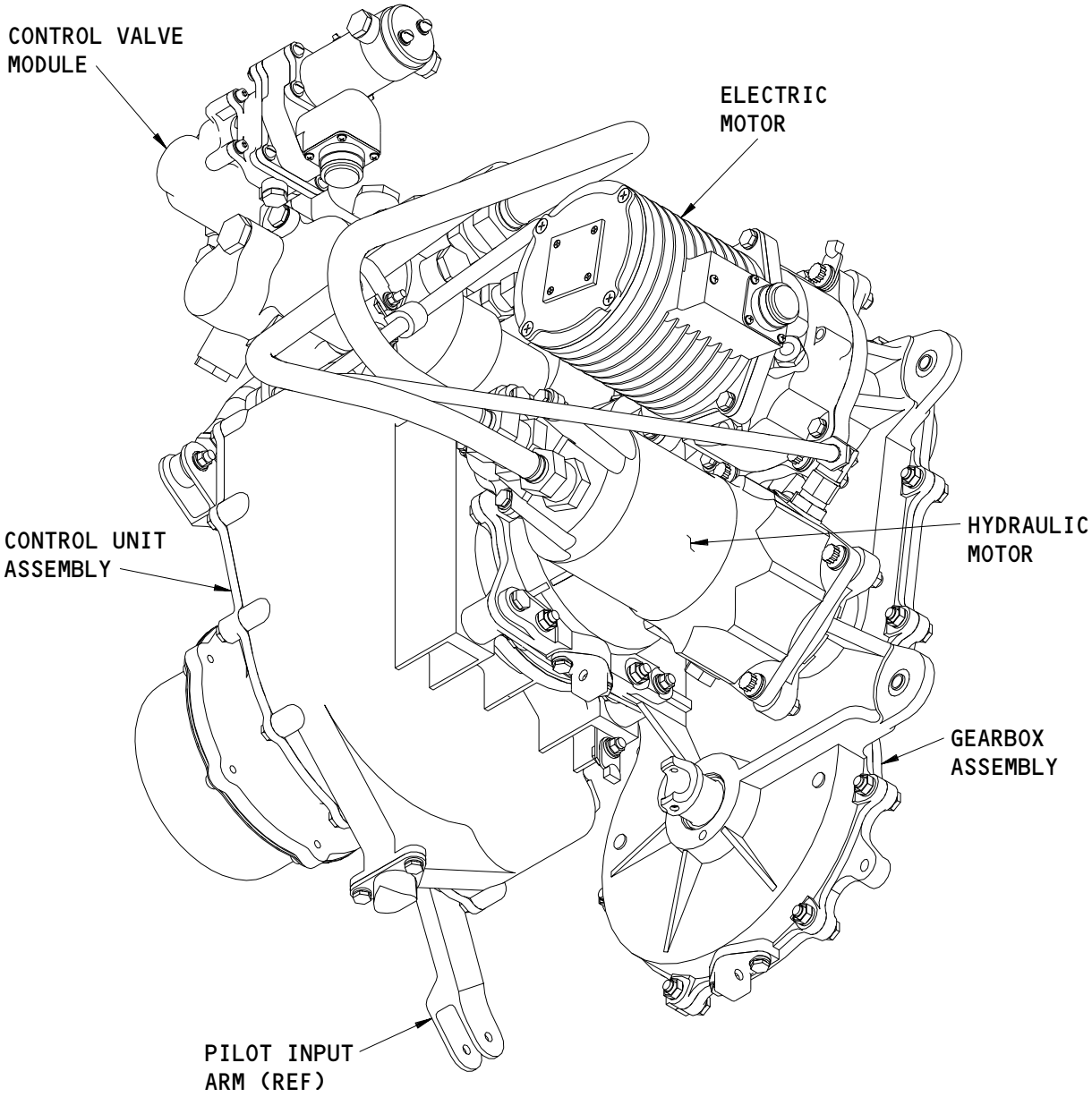
   C. Height -- 27 inches

   D. Weight -- 75 pounds

   E. Operating Medium -- Hydaulic Fluid, BMS 3-11 (Control valve module and hydraulic motor)
   -- 115v ac (electric motor)

   F. Operating Pressure - 3000 psi

   G. Output Shaft Speed - 720 rpm



Outboard Leading Edge Slat Drive – Power Drive Unit Assembly
Figure 1

TESTING AND FAULT ISOLATION

1. General

   A. This procedure has the data necessary to do a test of the mechanism after an overhaul or for fault isolation.

   B. Refer to the Standard Overhaul Practices Manual (SOPM) for details of the SOPM chapters identified in this procedure.

   C. Refer to IPL Fig. 1 for item numbers.

2. Testing and Fault Isolation

   A. Special Tools and Equipment

      NOTE: Equivalent tool/equipment can be used.

      (1) Mechanical Equipment

         NOTE: The following equipment are parts of Test Equipment A27079-96.

         (a) A27079-90 -- Fixture assembly which includes a dynamic torque transducer, a tachometer and a water cooled brake.

         (b) A27079-97 -- Support assembly which is used with the A27079-90 fixture assembly to support the power drive unit (PDU).

         (c) A27079-6 -- Lever support assembly, which is used with the A27079-85 Gage assembly to actuate the pilot input arm (PIA).

         (d) A27079-10 -- Spline

         (e) A27079-18 -- Coupling

         (f) MS20066-257 -- Machine key (2 required)

      (2) Hydraulic Equipment

         (a) Hydraulic test bench capable of delivering 16 gallons per minute (gpm) at 3000 pounds per square inch (psi). The test bench should have hoses and fittings that are required to connect to the test PDU.

(b) Flowmeter approved to measure a flow rate of 16.0 gpm with precision of ±1 gpm.

(3) Electrical Equipment

(a) AC power supply, 115v, 3 phase, 400 ±5 Hz, that can keep a minimum terminal voltage of 104v.

(b) DC power supply, 28v (22.0-29.5v permitted range), 12a.

(c) A27081-3 Test box (part of A27081-1 readout equipment), that can display torque readings and can provide a connection to the digital counter.

(d) A27081-8 and A27081-10 Cable assemblies (part of the A27081-1 readout equipment), used to connect the dynamic torque transducer and the tachometer to the A27081-3 test box.

(e) A27081-4 Test box (part of A27081-2 control equpment), that can operate the control valve and the alternnate motor.

(f) Fluke 1900A Digital counter that is used with the A27081-3 test box to give indications of revolutions per minute (rpm) and number of revolutions.

(g) North Atlantic Industries Model 2250 phase-sensitive voltmeter (± 2% of full scale)

(h) AC power supply, 28v ±100mV, 400 ±5 Hz

(4) Materials

(a) Hydraulic fluid, BMS 3-11, filtered continuously through a 5-micron nominal/15-micron absolute filter

(b) MCS352 Skydrol, Assembly lube

(c) MS20995C32, Lockwire

B. References

(1) 27-81-83/301, Disassembly

(2) 27-81-83/701, Assembly

(3) 27-81-55 for Control Unit (305)

C. Preparation for Test

(1) Mount the PDU on A27079-5, support assembly at the three mounting lugs on the PDU (ref Fig. 101).

(2) Check that test unit has been rigged in the "Slats Retracted" position (see 27-81-83/701, Assembly).

NOTE: The "Test Zero" position corresponds to the "Slats Retracted" position of the pilot input arm (PIA).

(3) Remove the protective cover from the control module pressure and return ports.

(4) Lightly lubricate the backup rings and the packings with MCS352 Skyrol assembly lube or BMS 3-11 hydraulic fluid before attaching hoses and fittings required for hookup to test bench.

(5) Check that the PDU hydrualic control module (215, IPL Fig. 1) and hydraulic drive motor (150) are filled with BMS 3-11 hydraulic fluid prior to testing.

(6) Connect hydraulic power to the control module and to the hydraulic motor.

(7) Attach the A27079-85, gage assembly, to the PDU.

(8) Electrical connection for the control and readout instruments (Fig. 103).

(a) Attach the connectors from the A27081-4, test box, to the hydraulic drive motor (150) and the control valve module (215) receptacles.

(b) Attach the A27081-8 and A27081-10, cable assemblies, to the torque transducer on the A27079-79, fixture assembly, and to the A27081-3, test box.

(c) Connect the Fluke 1900A, digital counter, to the DIGITAL COUNTER output jacks on the A27081-3, test box.

(d) Set DIGITAL COUNTER/PLOTTER switch to DIGITAL COUNTER.

(e) Connect 115v ac 50-400 Hz to the input jacks of the A27081-3, test box.

(f) Set power switch to ON.

(g) On the A27081-4, test box:

1) Set power switches to OFF.

2) Set alternate motor drive switch to OFF.

3) Set control valve module switch normal.

4) Close the 10A circuit breaker.

(h) Connect the 115v ac, 3-phase, 400 Hz and 28v dc to the corresponding input jacks of the A27081-4, test box.

(9) Use of A27081-3, test box and Fluke 1900A, digital counter:

1) The dynamic torque value is continuously displayed on the digital readout of the A27081-3, test box.

2) To get the number of revolutions during test, set MODE switch on Fluke 1900A, digital counter to TOTALIZER and divide the display value by 60. Adjust the counter to zero after each test or cumulative value will be displayed.

3) To obtain rpm during test, set MODE switch on the Fluke 1900A, digital counter to FREQUENCY. The display will show rpm (no conversion is required).

D. Test

(1) Check the control valve null and RVDT adjustment.

NOTE: Refer to CMM 27-81-55 for disassembly and assembly details of the control unit (305).

(a) Check that the output shaft is free to rotate.

(b) Set the hydraulic test stand at 2900-3100 psi to provide 14.25-15.75 gpm.

(c) Set the CONTROL VALVE MODULE switch on A27081-4, test box to NORMAL.

(d) Set the 28VDC POWER switch to ON.

(e) Check that the PIA is in the "Slats Retracted - Test Zero Position" as shown in Fig. 101.

(f) Remove the plug (205) on cover assembly of control unit (130A).

(g) Insert the 0.250 inch diameter input cam rig pin.

(h) Remove the plug (295) on the housing assembly of the control unit (305).

(i) Insert the 0.250 inch diameter follow-up cam rig pin.

(j) Adjust the length of the rod assembly (185) as required until the rig pin can be fully inserted.

(k) Check that both rig pins can be easily removed and installed freely.

(l) Remove the control unit (305) cover.

(m) Check the adjustment of the S256T0021-1, -3 and -6 rotary variable differential transformer (RVDT).

1) Loosen the clamps and remove the RVDT(s).

2) Align the black "null" mark on the RVDT body with the "null" mark on the RVDT shaft.

3) Install the RVDT(s).

4) Tighten the clamps lightly.

5) Rotate the RVDT(s) approximately 35 degrees counterclockwise.

6) Connect a voltmeter per Fig. 107.

7) Slowly rotate each RVDT until a reading of -8.75v ±60 millivolts is obtained.

8) Tighten the clamp.

9) Check the value per step (n).

(n) Check the adjustment of the S256T002-11 RVDT.

1) Make sure the RVDT shaft locking pin is captured in the leaf spring notch.

2) Align the RVDT attachment bolts with the support plate holes.

3) Insert the RVDT spline shaft.

NOTE: The RVDT shaft is locked until the second attachment bolt is tightened.

4) Thread and tighten only the RVDT bolt that is indicated by an arrow and the label "TIGHTEN FIRST".

5) Thread and tighten the second RVDT attachment bolt.

6) Connect the voltmeter as shown in Fig. 107 and make sure the voltmeter reads -10.0v ±60 millivolts.

(o) Install MS20995C32, lockwire on the RVDT attachments per SOPM 20-50-02.

(p) Install the cover on the control unit.

(q) Remove the rig pins and insert the plugs (170).

(2) Check normal hydraulic operation (Fig. 102, 104, 105).

NOTE: Allow the output shaft to stop revolving at each detent position before proceeding to the next detent position.

(a) Move the handle of A27079-85, gage assembly to the following successive detent positions: 1, 5, 15, 20 and 0.

(b) Measure the record the corresponding angular displament of pilot input arm (PIA) and check for compliance with Fig. 102.

(c) Measure and record the output shaft direction and the number of revolutions.

(d) Check for compliance with Table 1 (Fig. 105).

(e) Move handle of A27079-85, gage assembly, to the following successive detent positions: 25, 30, and 0.

(f) Measure and record the corresponding angular displacement of PIA.

(g) Check for compliance with Fig. 102.

(h) Measure and record the output shaft direction and number of revolutions.

(i) Check for compliance with Table 1 (Fig. 105).

(j) At the 30 detent also check that RVDT (S256T002-1, -3, -6) voltage is +10.32v ±220 millivolts or that RVDT (S256T002-11) voltage is +9.07v ±220 millivolts.

(3) Check the manual override.

(a) Switch off the 28v dc electrical power.

(b) Move the handle of A27079-85, gage assembly to the zero detent position.

(c) Move the manual override handle to Position 1 as shown in Fig. 101.

(d) Move handle of the A27079-85, gage assembly from the zero to the number 30 detent position.

(e) Check that the output shaft does not move.

(f) Move the handle back to the zero detent positon.

(g) Move the manual override handle back to Position 2.

(4) Check the torque output.

(a) Apply hydraulic pressure, 2900-3100 psi, to the hydraulic control valve module (215, IPL Fig. 1).

(b) Move the handle of A27079-85, gage assembly, to detent position as shown in Table 2 (Fig. 106).

(c) Gradually apply and maintain normal operating torques at each position.

NOTE: Output shaft will stop turning after completing the specified number of revolutions for each detent position.

(d) Remove hydraulic pressure.

(5) Check the backdriving torque.

(a) Move the manual override handle to Position 1.

(b) Disconnect the output shaft from the dynamic torque sensor in A27079-79, fixture assembly.

(c) Manually turn the output shaft in extend direction at least 5 full revolutions.

(d) Check that the torque required does not exceed 50 lb-in.

(e) Move the override handle to Position 2 and pressurize the unit for 1 minute.

(f) Remove pressure from the unit.

(6) Check the alternate electric motor operation.

(a) Set both of the POWER switches on the A27079-4, test box, to ON.

NOTE: This will supply 28v dc to the control valve module NORMAL circuit and 115v ac, 400 Hz, 3 phase to ARM RELAY.

(b) Move the handle of the A27079-85, gage assembly to the zero detent position.

(c) Identify the corresponding output shaft "Flaps Retracted" position.

(d) Move the NORMAL/BYPASS switch on the A27081-4, test box, to the BYPASS position.

(e) Move the EXTEND/RETRACT switch on the A27081-4, test box, to the EXTEND position.

(f) Check that the output shaft rotates in the "Extend" direction.

(g) Check that the output shaft speed is 90-110 rpm.

(h) Allow the shaft to rotate for 15-30 seconds.

(i) Move the EXTEND/RETRACT switch to the OFF position.

(j) Record the total number of revolutions after output shaft has stopped rotating.

CAUTION: DO NOT ALLOW OUTPUT SHAFT ROTATION DURING RETRACTION TO EXCEED THE NUMBER OF REVOLUTIONS NOTED IN STEP (3) OR GEARBOX/CONTROL UNIT COUPLING MAY BREAK.

(k) Move the switch to the RETRACT position.

(l) Check that the output shaft rotates in the "Retract" direction.

(m) Check that the output shaft speed is 90-110 rpm.

(n) Allow the shaft to rotate for 5-10 seconds.

(o) Move the EXTEND/RETRACT switch to OFF position.

(p) Move the NORMAL/BYPASS switch to the NORMAL position.

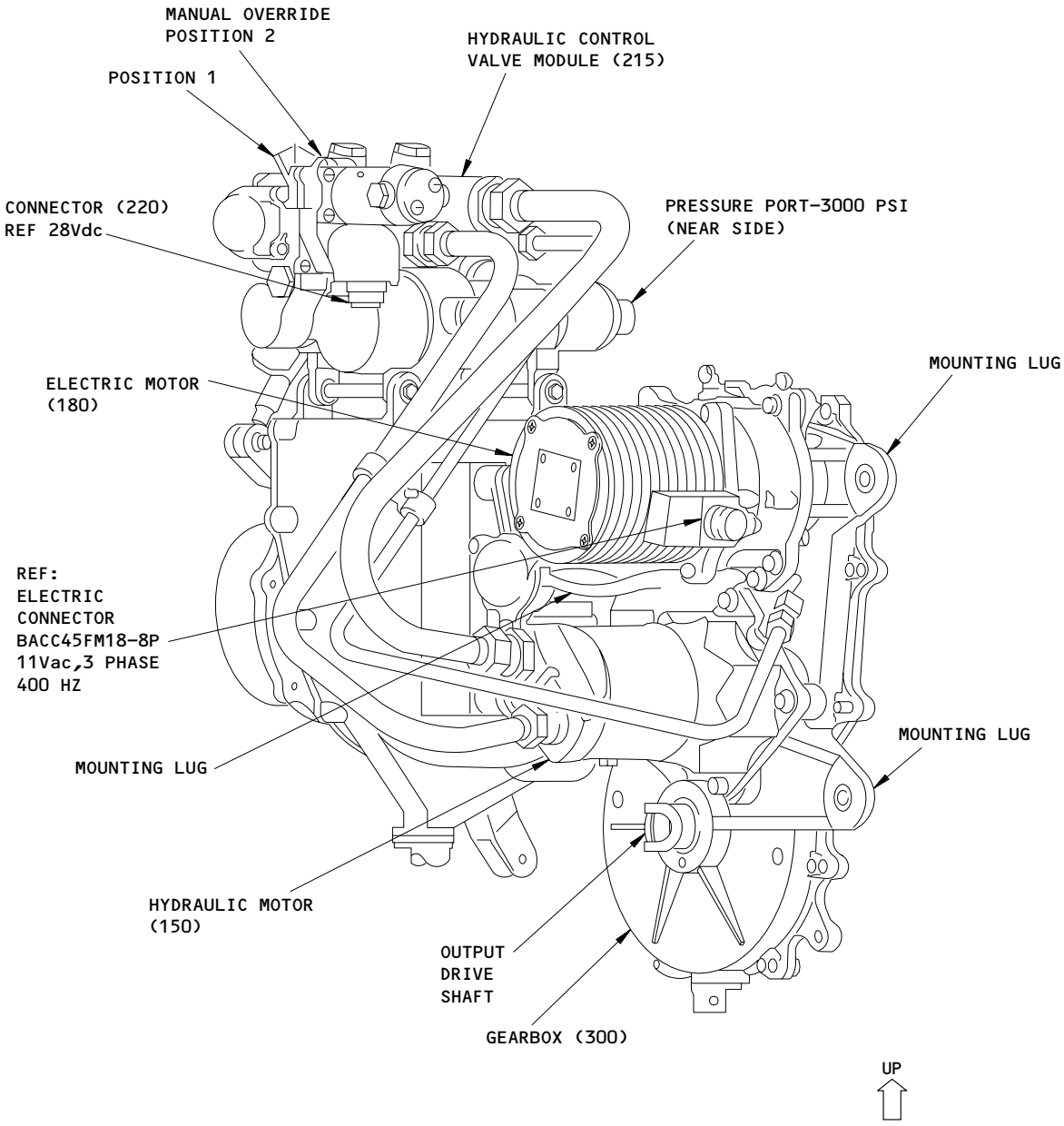
(q) Apply hydraulic pressure per par. 1.(a) and allow unit to travel to full-up position.

(r) Move the handle of the A27079-85, gage assembly, to the following successive detent positions: 1, 5, 15, 20 and 0.

NOTE: Allow the output shaft to stop revolving at each detent position before proceeding to the next detent position.

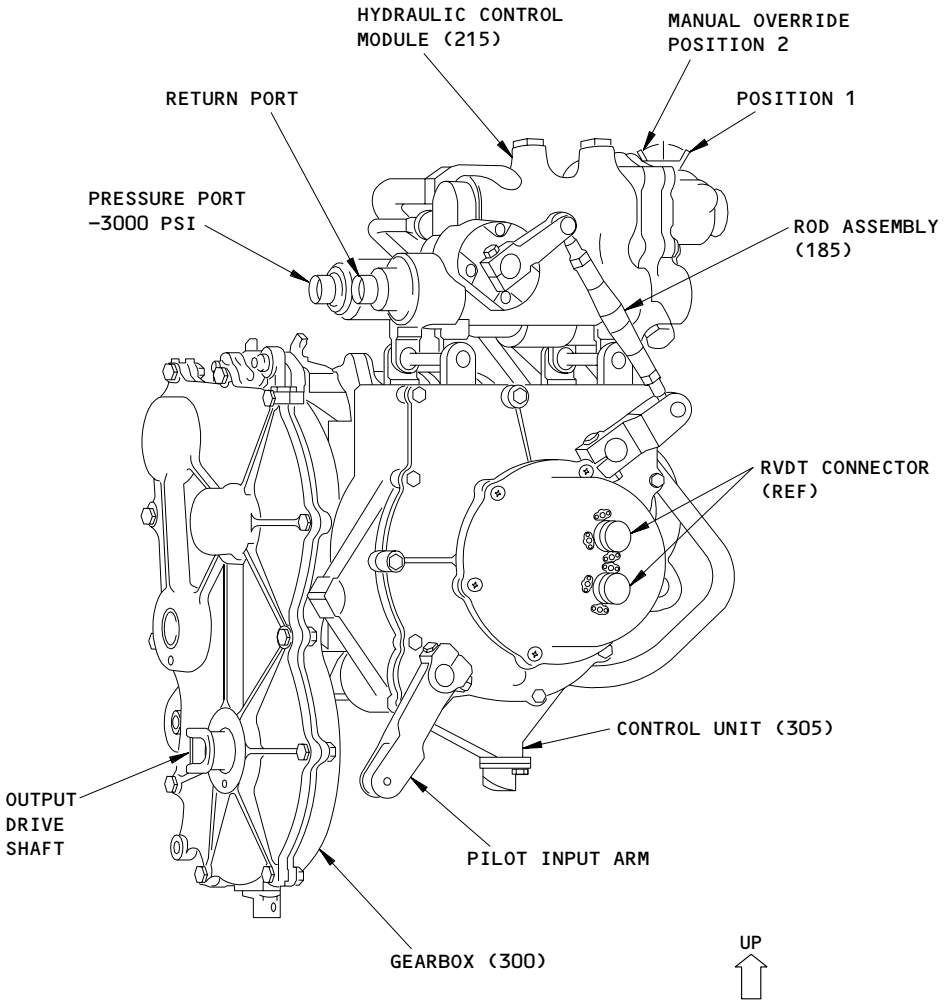
(s) Remove the hydraulic pressure.

(7) Cap all of the exposed hydraulic ports with hydraulic resistant plugs after completing the functional test.



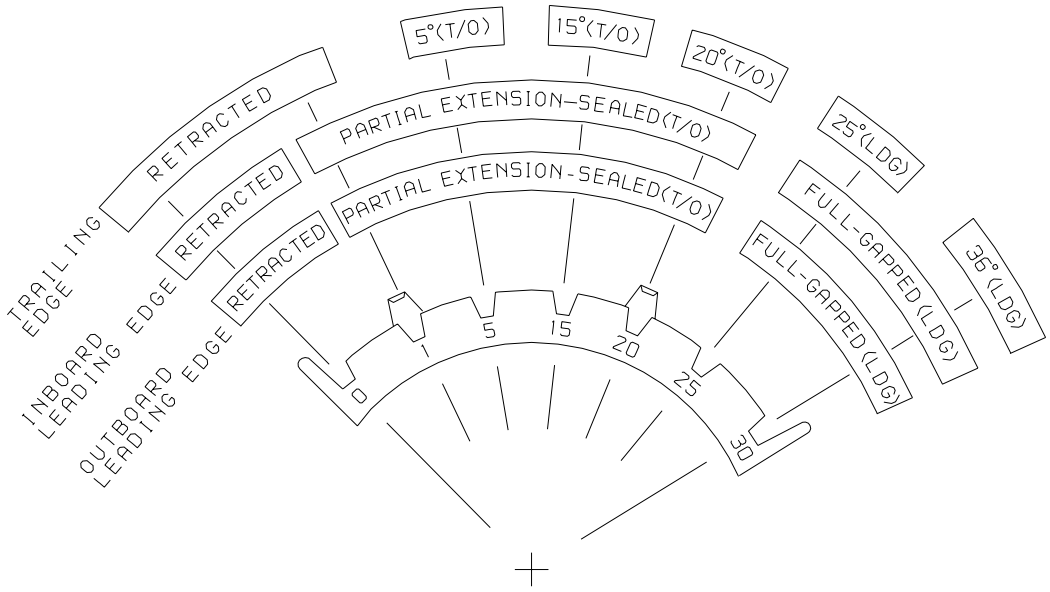
Power Drive Unit Assembly
Figure 101 (Sheet 1)

K24946



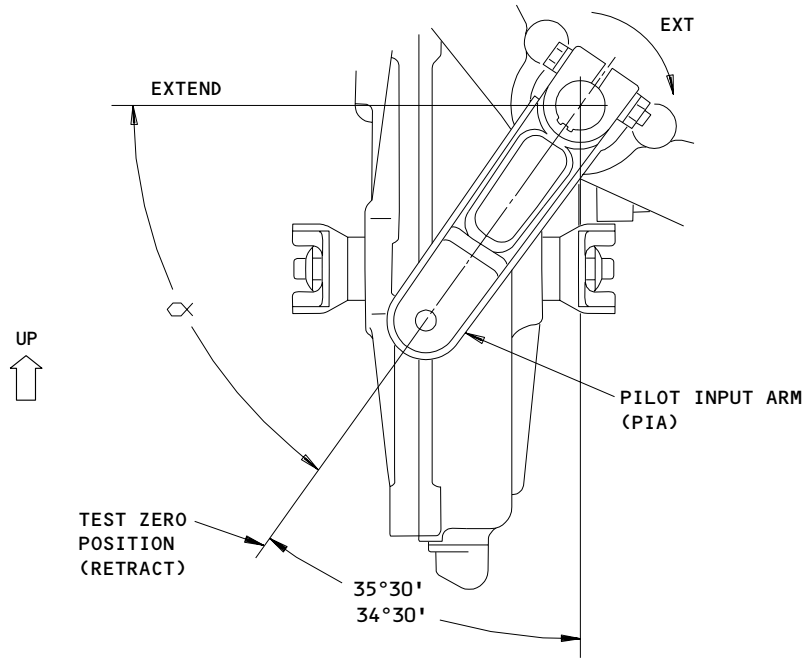
Power Drive Unit Assembly
Figure 101 (Sheet 2)

K25173



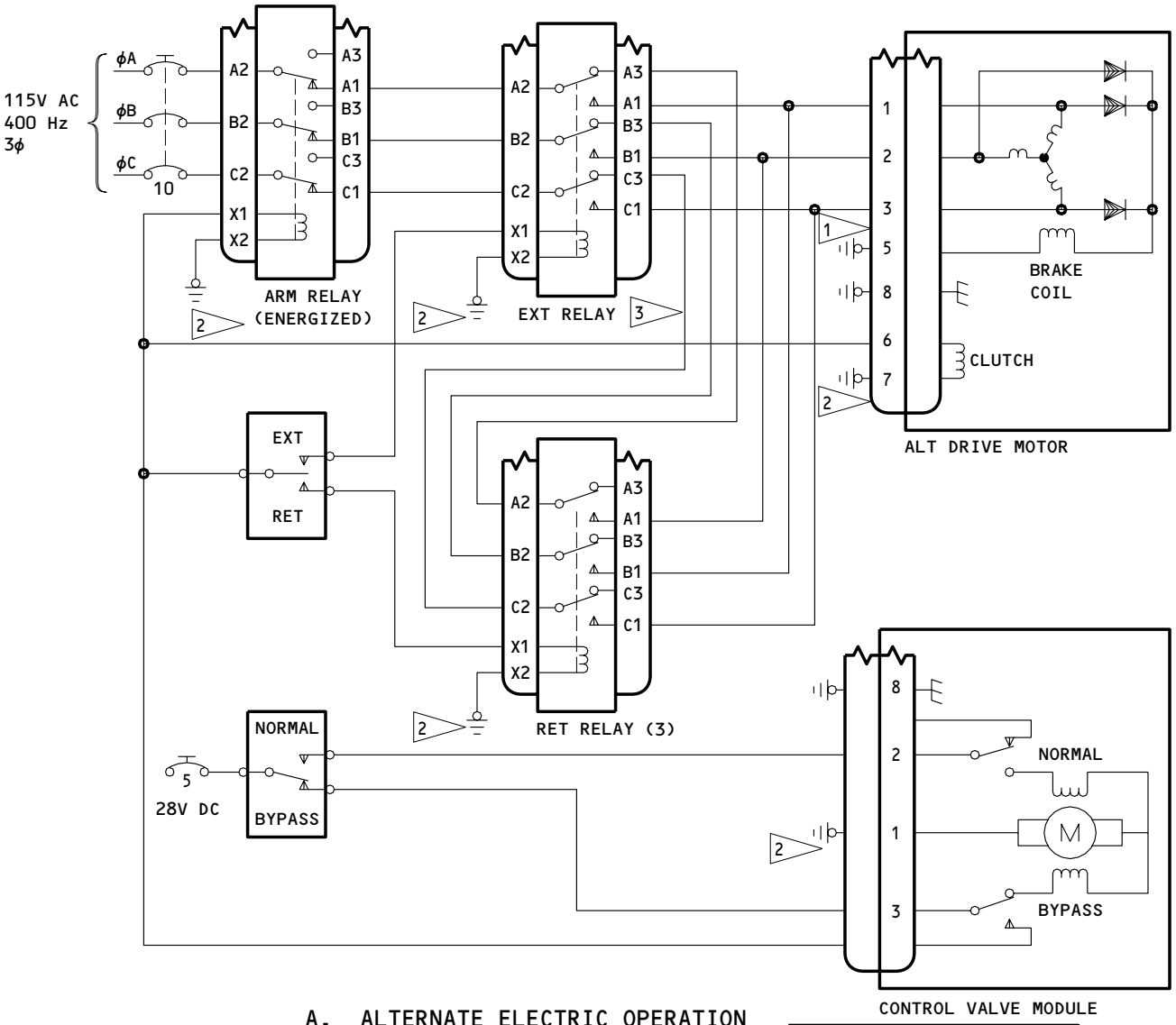
FLAP HANDLE DEVICE
(PILOT INPUT ARM ACTUATION DEVICE)

DETENT NO.	0	1	5	15	20	25	30
∠(DEG)	0	7–13	17–23	27–33	37–43	47–53	57–63

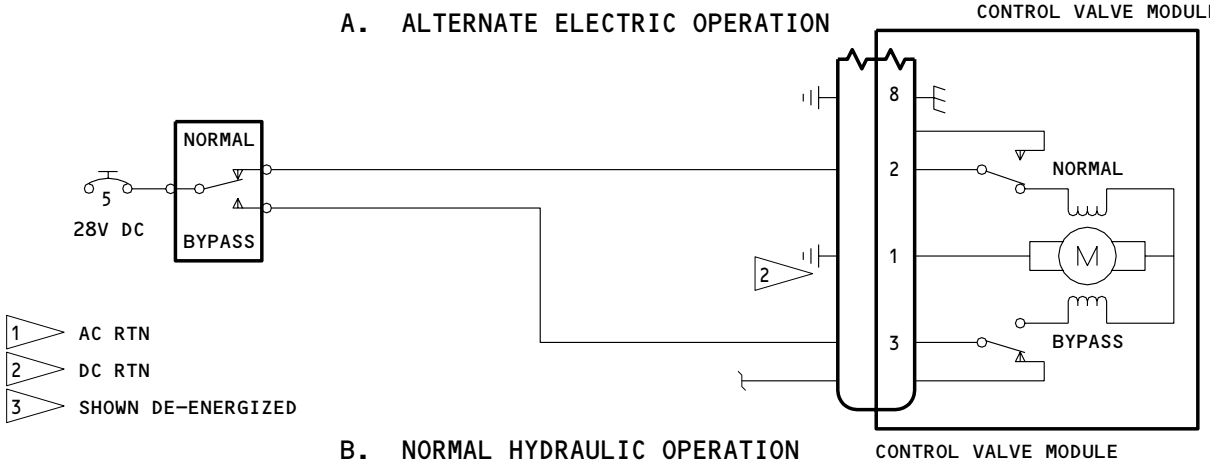


Pilot Input Arm Actuation
Figure 102

K25178



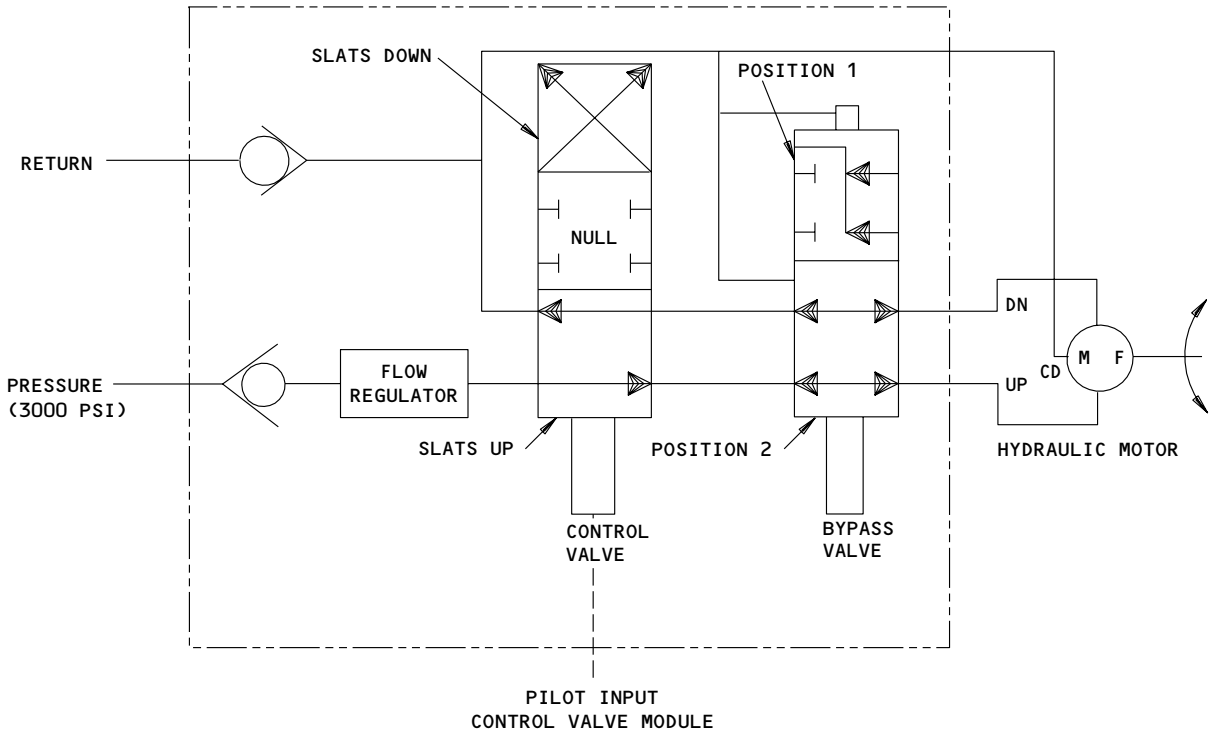
A. ALTERNATE ELECTRIC OPERATION



B. NORMAL HYDRAULIC OPERATION

Functional Test Electrical Schematic Diagram
Figure 103

K25191



Hydraulic Functional Schematic Diagram
Figure 104

K25195

Detent Position [1]	Output Shaft Revolutions (±0.5)	Direction of Rotation [2]	
		Extend	Retract
0	0	-	-
1	87.8	X	
5	0	-	
15	0	-	
20	0	-	
0	87.8		X
0	0	-	-
25	116.7	X	
30	0	-	
0	116.7		X

Table I

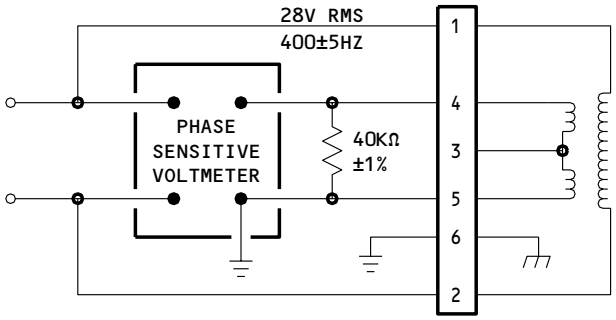
[1] SEE FIG. 102
[2] SEE FIG. 101

Normal Hydraulic Operation
Figure 105

K25196

Detent Position	Normal Operating Torque (lb-in.)	Number of Revolutions of Output Shaft (Direction)
0	0	0
1	400-460	87.3-88.3 (Extend)
0	895-955	87.3-88.3 (Retract)
0	0	87.3-88.3 (Extend)
20	670-730	87.3-88.3 (Retract)
30	390-450	116.2-117.2 (Extend)
0	330-390	116.2-117.2 (Retract)

Table II
Torque Output



Electrical Schematic for RVDT Adjustment
Figure 106

K25247

DISASSEMBLY

1. General

   A. This procedure has the data necessary to disassemble the power drive unit (PDU) assembly.

   B. Disassemble this component sufficiently to isolate the defects, do the necessary repairs, and put the component back to a serviceable condition.

   C. Refer to the Standard Overhaul Practices Manual (SOPM) for details of the SOPM chapters identified in this procedure.

   D. Refer to IPL Fig. 1 for item numbers.

2. Disassembly

   A. References

      (1) CMM 27-00-11, Control Rod Assembly

      (2) CMM 27-81-73, Outboard Leading-Edge Slat-Drive Power-Drive-Unit Gearbox Assembly

   B. Procedure

      NOTE: See Testing and Fault Isolation to find the condition of the power drive unit (PDU) or reason to defect. This is to find the quantity of disassebmly necessary without full disassembly of the PDU.

      (1) Use standard industry procedures and the steps shown below to disassemble this component.

      (2) Part Replacement:

         NOTE: The following parts are recommended for replacement. Unless differently specified, replacement of parts may be based on in-service experience.

         (a) Lockwire

         (b) Packings

      (3) Disassembly (IPL Fig. 1)

CAUTION: CAREFULLY REMOVE THE TUBE ASSEMBLIES (40, 55, 70). DO NOT FORCE OR BEND TUBE ASSEMBLY DURING REMOVAL.

(a) Remove the tube assemblies (40, 55, 75).

1) For tube assembly (40), loosen coupling nuts and remove unions (30) and packings (35).

2) Remove the tube assembly (40).

3) Remove the clamps (15, 20) and fasteners (5, 10, 25).

4) Remove the tube assembly (55) and remove unions (45) and packings (50).

5) Remove the tube assembly (75).

(b) Remove the elbow (70), unions (60) and packings (65).

(c) Remove the plug (160) and packing (165) from hydraulic motor (150).

(d) Remove the bolts (125), washers (135, 140), nuts (145) and remove hydrulic motor (150).

(e) Remove packing (155).

NOTE: Refer to manufacturer's instructions for disassembly and repair of hydraulic motor (150).

(f) Remove bolts (80, 85), washers (90, 95, 100), nuts (105) and electric motor (120).

NOTE: Refer to manufacturer's instructions for disassembly and repair of electric motor (120).

(g) Remove bolts (170), washers (175), and nuts (180) and rod assembly (185).

NOTE: Refer to CMM 27-00-11 for repair of rod assembly (185).

(h) Remove parts (190, 195, 205, 210, 220) and remove control valve module (215).

NOTE: Refer to manufacturer's instructions for disassembly and repair of control valve module (215).

(i) Remove lockwire and remove the bolts (225, 245, 265), washers (235, 255, 310) and nuts (240). Remove the control unit assembly (305A) from the the gearbox assembly (300). Remove the support (280) and jumper (110).

NOTE: Refer to 27-81-73 for disassembly and repair of the gearbox assembly (300).

(j) Remove the plugs (295) and quill shaft (290) from the control unit assembly (305A).

NOTE: Refer to 27-81-55 for disassembly and repair of the control unit assembly (305A).

CHECK

1. General

   A. This procedure has the data necessary to find defects in the material of the specified parts.

   B. Refer to FITS AND CLEARANCES for the design dimension and wear limits.

   C. Refer to the Standard Overhaul Practices Manual (SOPM) for details of the SOPM chapters identified in this procedure.

   D. Refer to IPL Fig. 1 for item numbers.

2. Check

   A. References

      (1) CMM 27-00-11, Control Rod Assembly

      (2) CMM 27-81-55, Outboard Leading Edge Slat Drive Control Unit Assembly

      (3) CMM 27-81-73, Outboard Leading Edge Slat Drive Power Drive Unit Gearbox Assembly

      (4) SOPM 20-20-02, Penetrant Methods of Inspection

   B. Procedure

      (1) Use standard industry procedures to do a visual check of all the parts for defects. Do the penetrant or magnetic particle check if the visual check shows possible damage or if you suspect possible damage on the parts listed below:

      (2) Do a penetrant check (SOPM 20-20-02) of these parts:

         (a) Shaft (290)

      (3) Refer to the manufacturer's instructions to do a check of the control valve module (215), hydraulic motor (150), and electric motor (120).

      (4) Refer to CMM 27-00-11 to do a check of the rod assembly (185).

      (5) Refer to CMM 27-81-73 to do a check of the gearbox assembly (300).

      (6) Refer to CMM 27-81-55 to do a check of the control unit assembly (305A).

REPAIR - GENERAL

1. General

A. Instructions for repair, refinish, and replacement of the specified subassembly parts are included in each REPAIR when applicable:

PART NUMBER	NAME	REPAIR
---	REFINISH OF OTHER PARTS	1-1
256T5124	NAMEPLATE	2-1
BAC27TCT0286 BAC27TCT0304	MARKER	2-1

2. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in the applicable repair procedures are shown in Fig. 601.

—	STRAIGHTNESS
▱	FLATNESS
⊥	PERPENDICULARITY (OR SQUARENESS)
//	PARALLELISM
○	ROUNDNESS
⌭	CYLINDRICITY
⌒	PROFILE OF A LINE
⌓	PROFILE OF A SURFACE
◎	CONCENTRICITY
⌯	SYMMETRY
∠	ANGULARITY
↗	RUNOUT
↗↗	TOTAL RUNOUT
⌴	COUNTERBORE OR SPOTFACE
∨	COUNTERSINK
⌖	THEORETICAL EXACT POSITION OF A FEATURE (TRUE POSITION)
∅	DIAMETER
S ∅	SPHERICAL DIAMETER
R	RADIUS
SR	SPHERICAL RADIUS
()	REFERENCE
BASIC (BSC) OR [DIM]	A THEORETICALLY EXACT DIMENSION USED TO DESCRIBE SIZE, SHAPE OR LOCATION OF A FEATURE. FROM THIS FEATURE PERMISSIBLE VARIATIONS ARE ESTABLISHED BY TOLERANCES ON OTHER DIMENSIONS OR NOTES.
[-A-]	DATUM
Ⓜ	MAXIMUM MATERIAL CONDITION (MMC)
Ⓛ	LEAST MATERIAL CONDITION (LMC)
Ⓢ	REGARDLESS OF FEATURE SIZE (RFS)
Ⓟ	PROJECTED TOLERANCE ZONE
FIM	FULL INDICATOR MOVEMENT

EXAMPLES

— | 0.002	STRAIGHT WITHIN 0.002
⊥ | 0.002 | B	PERPENDICULAR TO DATUM B WITHIN 0.002
// | 0.002 | A	PARALLEL TO DATUM A WITHIN 0.002
○ | 0.002	ROUND WITHIN 0.002
⌭ | 0.010	CYLINDRICAL SURFACE MUST LIE BETWEEN TWO CONCENTRIC CYLINDERS, ONE OF WHICH HAS A RADIUS 0.010 INCH GREATER THAN THE OTHER
⌒ | 0.006 | A	EACH LINE ELEMENT OF THE SURFACE AT ANY CROSS SECTION MUST LIE BETWEEN TWO PROFILE BOUNDARIES 0.006 INCH APART RELATIVE TO DATUM A
⌓ | 0.020 | A	SURFACES MUST LIE WITHIN PARALLEL BOUNDARIES 0.020 INCH APART AND EQUALLY DISPOSED ABOUT TRUE PROFILE
◎ | ∅ 0.0005 | C	CONCENTRIC TO DATUM C WITHIN 0.0005 DIAMETER
⌯ | 0.010 | A	SYMMETRICAL WITH DATUM A WITHIN 0.010
∠ | 0.005 | A	ANGULAR TOLERANCE 0.005 WITH DATUM A
⌖ | ∅ 0.002 Ⓢ | B	LOCATED AT TRUE POSITION WITHIN 0.002 DIA RELATIVE TO DATUM B, REGARDLESS OF FEATURE SIZE
⊥ | ∅ 0.010 Ⓜ | A 0.510 Ⓟ	AXIS IS TOTALLY WITHIN A CYLINDER OF 0.010 INCH DIAMETER, PERPENDICULAR TO DATUM A, AND EXTENDING 0.510 INCH ABOVE DATUM A, MAXIMUM MATERIAL CONDITION
[2.000] OR 2.000 BSC	THEORETICALLY EXACT DIMENSION IS 2.000

True Position Dimensioning Symbols
Figure 601

KD7051

REFINISH OF OTHER PARTS - REPAIR 1-1

1. General

   A. This procedure has the data necessary to refinish the parts which are not given in the specified repairs.

   B. Refer to the Standard Overhaul Practices Manual (SOPM) for details of the SOPM chapters identified in this procedure.

   C. Refer to IPL Fig. 1 for item numbers.

2. Refinish of Other Parts

   A. General

      (1) Instructions for the repair of the parts listed in Table 601 are for repair of the initial finish.

   B. Consumable Materials

      NOTE: Equivalent material can be used.

      (1) C00432 Primer -- BMS 10-11, Type 1 (SOPM 20-60-02)

   C. References

      (1) SOPM 20-30-02, Stripping of Protective Finishes

      (2) SOPM 20-30-03, General Cleaning Procedures

      (3) SOPM 20-41-01, Decoding Table for Boeing Finish Codes

      (4) SOPM 20-41-02, Application of Chemical and Solvent Resistant Finishes

(5) SOPM 20-43-01, Chromic Acid Anodizing

(6) SOPM 20-43-03, Chemical Conversion Coatings for Aluminum

(7) SOPM 20-60-02, Finishing Materials

D. Procedure

IPL FIG. & ITEM	MATERIAL	FINISH
IPL Fig. 1		
Support (280)	Aluminum alloy	Chemical treat or chromic acid anodize and apply BMS 10-11, Type 1 primer (F-18.05).
Quill shaft (290)	Aluminum alloy	Chromic acid anodize (F-17.02).

Refinish Details
Table 601

NAMEPLATE AND MARKER - REPAIR 2-1

256T5124-15, -16, -17
BAC27TCT0286
BAC27TCT0304

1. General

A. This procedure has the data necessary to replace nameplate (310) and markers (315, 320) on the power drive unit (PDU) assembly.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for details of the SOPM chapters identified in this procedure.

C. Refer to IPL Fig. 1 for item numbers.

2. Nameplate and Marker Replacement

A. Consumable Materials

NOTE: Equivalent material can be used.

(1) A00278 Adhesive -- BMS 5-92, Type 1 or 3 (SOPM 20-60-04)

(2) A00744 Thickening agent -- Cab-o-sil Type MS or HS-5 (SOPM 20-50-12)

B. References

(1) SOPM 20-50-12, Application of Adhesives, Type 70

C. Procedure

(1) Bond as shown in SOPM 20-50-12, Type 70

(2) Bond the nameplate (310) to the cover on the control unit assembly (305A).

(3) Bond the marker (315) to the control valve assembly (215).

(4) Bond the marker (320) to the electric motor (120).

ASSEMBLY

1. General

   A. This procedure has the data necessary to assemble the power drive unit (PDU) assembly (1A).

   B. Refer to the Standard Overhaul Practices Manual (SOPM) for details of the SOPM chapters identified in this procedure.

   C. Refer to IPL Fig. 1 for item numbers.

2. Assembly

   A. Consumable Materials

      NOTE: Equivalent material can be used.

      (1) D00108 Grease -- MIL-G-23827 (SOPM 20-60-03)

      (2) D00015 Grease -- BMS 3-24 (SOPM 20-60-03)

      (3) A00413 Sealant -- BMS 5-26 (SOPM 20-60-04)

      (4) G00376 Lockwire -- MS20995C32

   B. References

      (1) CMM 27-81-55, Outboard Leading Edge Slat Drive Control Unit Assembly

      (2) SOPM 20-11-03, Repair of Electrical Terminations and Electrical Bonding Areas

      (3) SOPM 20-50-01, Bolt and Nut Installation

      (4) SOPM 20-50-02, Installation of Safetying Devices

      (5) SOPM 20-60-04, Miscellaneous Materials

   C. Procedure

      NOTE: Three rigging pins are required for assembly - two 0.250-inch diameter pins and one 0.187-inch diameter pin.

      (1) Use standard industry procedures and the steps shown below to assemble this component.

(2) Assemble the control valve module (215) to the control unit assembly (305A).

(a) Turn the pilot input arm (CMM 27-81-55) on the control unit assembly to the position shown in Fig. 701. Install a 0.250-inch rigging pin in the input cam rig pin hole.

(b) Adjust the position of the pilot input arm as necessary until the pin can be put fully into the hole.

NOTE: This position sets the pilot input arm in the slats retracted position.

CAUTION: DO NOT TURN THE VALVE INPUT ARM MANUALLY. ADJUST THE POSITION OF THE VALVE INPUT ARM BY TURNING THE FOLLOW-UP CAM SHAFT ONLY.

(c) Turn the follow-up cam shaft (CMM 27-81-55) on the control unit assembly using the quill shaft (290) or an equivalent tool until the valve input arm is at the position shown in Fig. 701.

(d) Install a 0.250-inch rigging pin in the follow-up cam rig pin hole. Adjust the follow-up cam as necessary until rigging pin can be put fully into the hole.

NOTE: This position sets the follow-up cam in the slats retracted position.

(e) Apply a thin layer of grease, BMS 3-24, to the shank and threads of bolts (190), and to the bushings (205).

(f) Set the control valve module (215) on the control unit assembly (305A) and install parts (190, 195, 200, 205, 210, 220) with the washers (220) under the bolt heads, and the washers (200) under the nuts.

(g) Clean and bond the area shown in Fig. 701. Refer to SOPM 20-11-03.

(h) Make sure that the resistance across the bond area is 0.001 ohm maximum.

(i) Apply a thin layer of grease, BMS 3-24, to the shank and threads of bolt (170), the faces of washer (175), and the threads of nut (180).

(j) Set the rod assembly (185) (nominal length 6.56 inches) on the valve input arm of the control unit assembly (305A).

(k) Install the fasteners lubricated in step (i).

(l) Turn the arm on the control valve module (215) until the hole for the rigging pin on arm aligns with the hole in the body.

(m) Install the 0.187-inch rigging pin.

(n) Apply a thin layer of grease, BMS 3-24, to the shank and threads of bolt (170), the faces of washer (175), and the threads of nut (180).

(o) Put the other end of the rod assembly (185) on the arm of the control valve module (215).

(p) Loosen the locking devices and adjust the rod end at both ends of the rod assembly (185) as necessary to get the correct length.

(q) Install the fasteners lubricated in step (n).

(r) Apply a thin layer of grease, BMS 3-24, to the threads of the rod assembly after adjustment.

(s) Make sure that all rigging pins can be removed and then installed freely.

(t) Remove all rigging pins.

(u) Install the plugs (295).

(v) Install MS20995NC32 lockwire on the nuts on the rod assembly (185). Use the double-twist method as shown in SOPM 20-50-02.

(3) Assemble the gearbox assembly (300) to the control unit assembly (305A).

(a) Apply a layer of MIL-G-23827 grease to the splines of the quill shaft (290). Install the quill shaft in the follow-up cam shaft of the control unit assembly (305A).

CAUTION: DO NOT USE FORCE TO ASSEMBLE THE GEARBOX AND CONTROL UNIT. TURN THE GEARBOX OUTPUT SHAFT IF NECESSARY TO ALIGN THE QUILL SHAFT SPLINES FOR ASSEMBLY.

(b) Install the gearbox assembly (300) to the control unit assembly (305A) with the quill shaft (290) mated with the spline in the gearbox.

(c) Install the jumper (110), support (280) and fasteners (245 thru 260) as shown in Fig. 701.

(d) Attach the jumper (285) to the support (280) with the screw (265), nut (275) and washers (270).

NOTE: Install the jumpers (110, 285) and the support (280) as shown in SOPM 20-11-03.

(e) Fillet seal the contact area between the control unit assembly (305A) and the gearbox assembly (300) with BMS 5-26 sealant.

(4) Install the electric motor (120).

(a) Apply a layer of MIL-G-23827 grease to the spline of the electric motor (120).

(b) Install the electric motor on the gearbox assembly (300).

(c) Apply a thin layer of BMS 3-24 grease to the shank and threads of bolt (85), washers (100) and nuts (105) (except the nut that connects with the bolt (80) used with the jumper (115)).

(d) Attach the electric motor (120) to the gearbox assembly (300) with the parts lubricated in step (c).

(e) Attach the jumper (115) to the electric motor with the bolt (80), washers (95) and nut (105).

NOTE: Bond the jumper (115) as shown in SOPM 20-11-03.

(5) Install the hydraulic motor (150).

(a) Install the plug (160) and packings (155, 165) on the hydraulic motor (150).

(b) Coat the spline of the hydraulic motor (150) with MIL-G-23827 grease.

(c) Put the motor on the gearbox assembly (300).

(d) Apply a thin layer of BMS 3-24 grease to the shank and threads of the bolts (125), faces of the washers (135), and threads of the nuts (145).

(e) Attach the hydraulic motor (150) to the gearbox assembly (300) with the parts lubricated in step (d).

(6) Install the tube assemblies (5, 40, 60).

CAUTION: CAREFULLY INSTALL TUBE ASSEMBLIES (5, 40, 60). DO NOT FORCE OR BEND THE TUBE ASSEMBLIES.

(a) Install the unions (60) and packings (65) on the control valve module (215) and on the hydraulic motor (150).

(b) Install the elbow (70) on the union (60) on the hydraulic motor (150) and tighten the swivel nut on the elbow finger-tight.

(c) Install the tube assembly (75) on the control valve module (215) and attach the other end to the elbow (70).

(d) Set the elbow so that there is no preload on the tube assembly (40), and tighten the swivel nut on the elbow.

(e) Install the unions (45), packings (50), and tube assembly (55).

(f) Install the unions (30), packings (35), and tube assembly (40).

(g) Install the clamps (15, 20) and fasteners (5, 10, 25) on the tube assemblies (55, 75).

(7) Make sure that the force necessary to move the pilot input arm on the control unit assembly (305A) to any detent position on extension or retraction is not more than 10 lb., measured perpendicular to the input arm.

(8) Do a test of the PDU. Refer to TESTING AND FAULT ISOLATION.

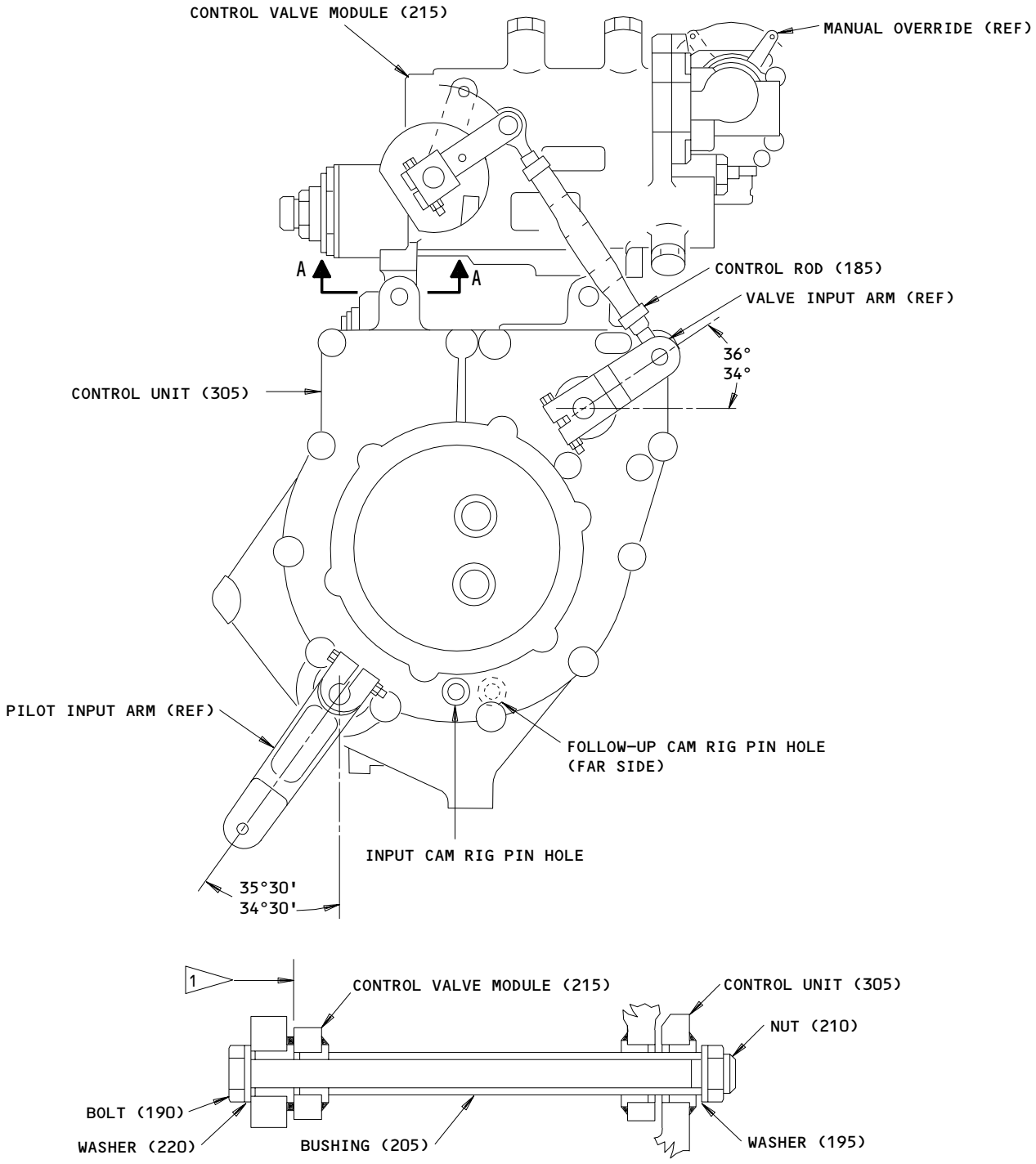
(9) Install the lockwire between the plug (160) and the bolt (130). Use the double-twist method as shown in SOPM 20-50-02.

(10) Install the lockwire between the bolt (245) and bolt (265). Use the double-twist method as shown in SOPM 20-50-02.

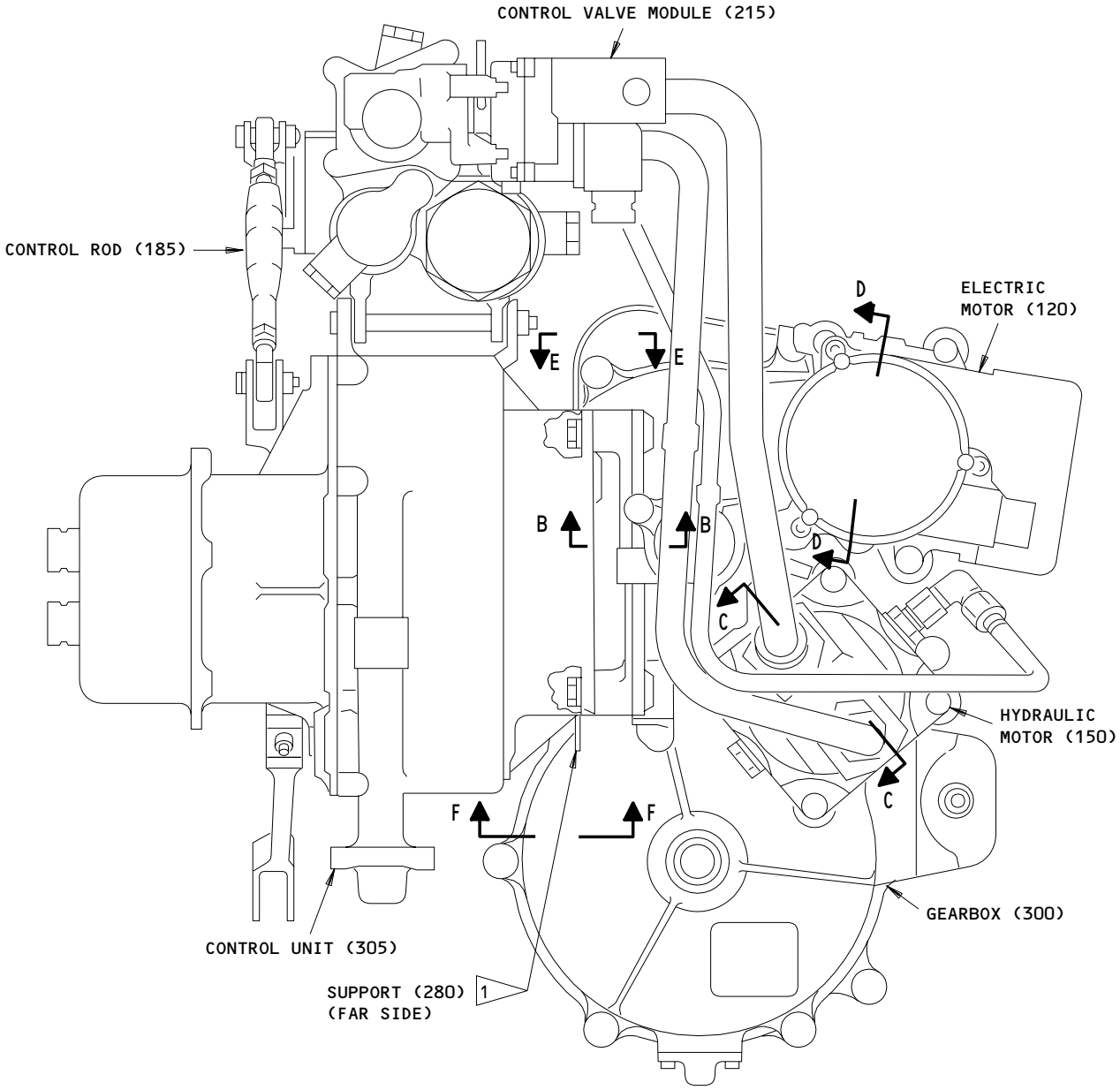
D. Storage

(1) Install fluid-resistant caps or plugs on open hydraulic ports.

(2) Use standard industry procedures to store this component.

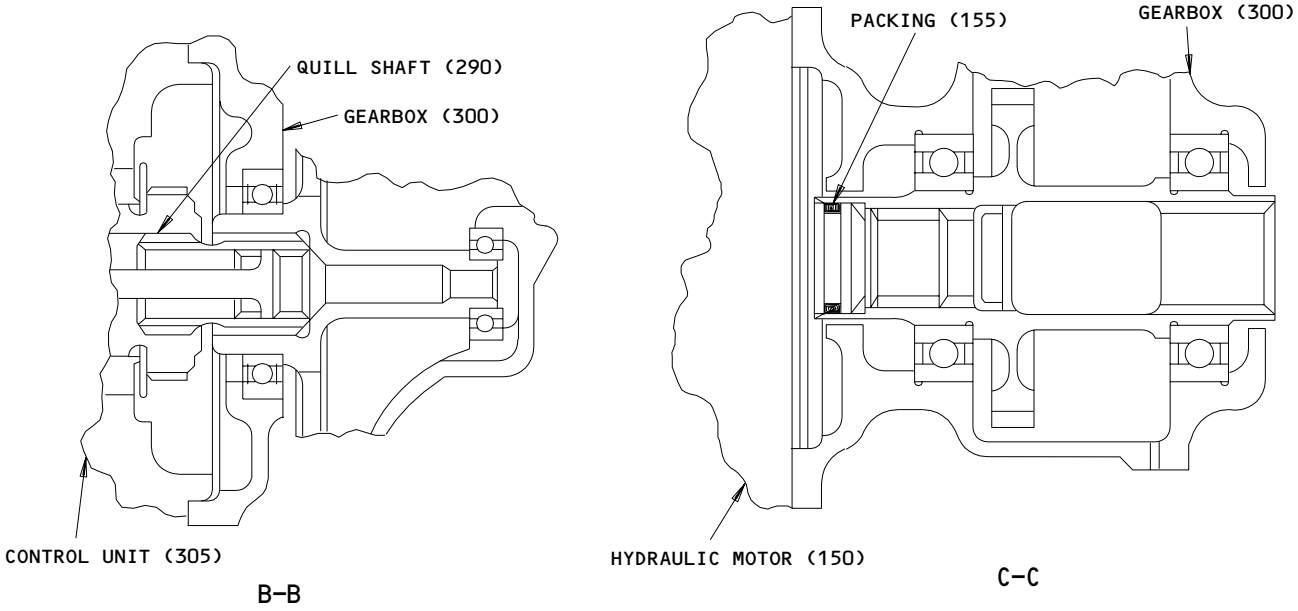


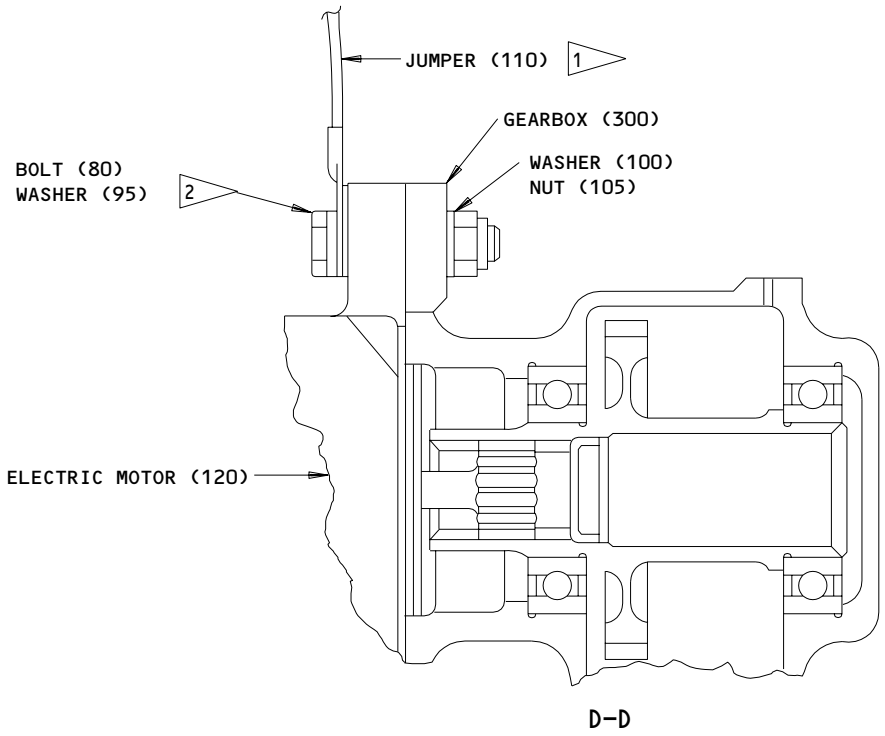
Assembly Details
Figure 701 (Sheet 1)



Assembly Details
Figure 701 (Sheet 2)

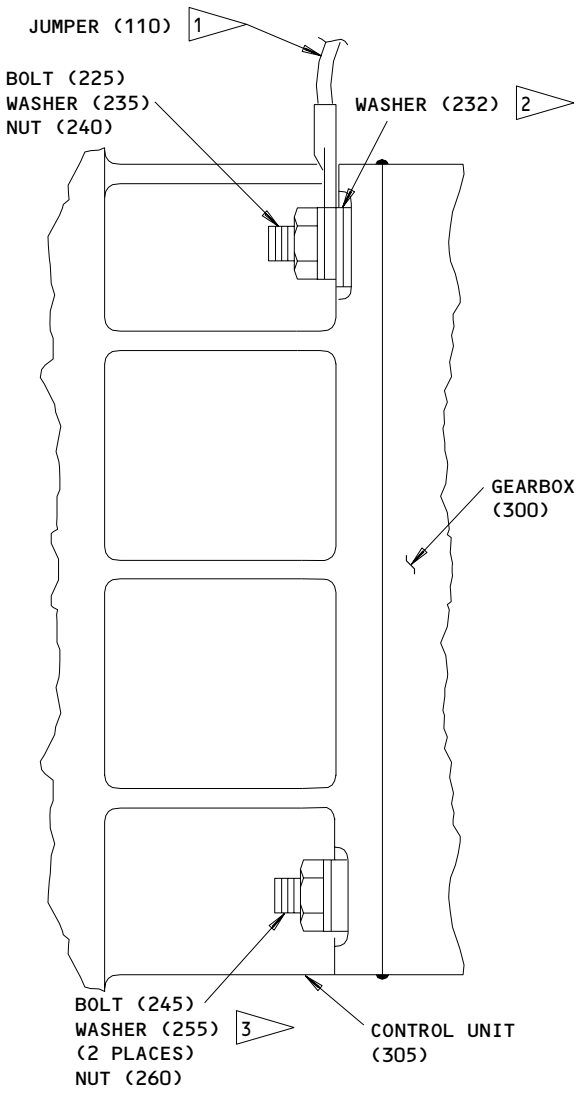
K25564



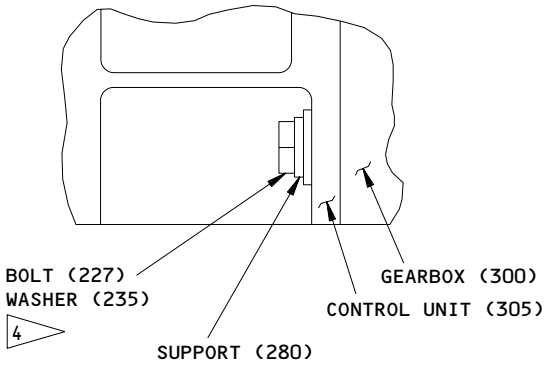


Assembly Details
Figure 701 (Sheet 3)

K25579



E-E



F-F

1 CLEAN AND BOND AS SHOWN IN SOPM 20-11-03. TOTAL RESISTANCE ACROSS BOND SHALL BE 0.001 OHM MAXIMUM

2 ADD OR DELETE WASHERS AS NECESSARY (AT SPOT FACE SURFACE), SO THAT WASHER HEIGHT IS FLUSH OR IS LESS THAN ONE WASHER THICKNESS

3 ADD WASHERS AS NECESSARY TO MAKE SURE WRENCH AND BOLT HEAD ENGAGE FULLY

4 INSTALL LOCKWIRE USING DOUBLE TWIST METHOD

Assembly Details
Figure 701 (Sheet 4)

SPECIAL TOOLS

NOTE: Equivalent tools/equipment can be used.

1. Mechanical Equipment

NOTE: The following equipment are parts of Test Equipment A27079-96.

A. A27079-90 -- Fixture assembly which includes a dynamic torque transducer, a tachometer and a water cooled brake.

B. A27079-97 -- Support assembly which is used with the A27079-90 fixture assembly to support the power drive unit (PDU).

C. A27079-6 -- Lever support assembly, which is used with the A27079-85 Gage assembly to actuate the pilot input arm (PIA).

D. A27079-10 -- Spline

E. A27079-18 -- Coupling

F. MS20066-257 -- Machine key (2 required)

2. Hydraulic Equipment

A. Hydraulic test bench capable of delivering 16 gallons per minute (gpm) at 3000 pounds per square inch (psi). The test bench should have hoses and fittings that are required to connect to the test PDU.

B. Flowmeter approved to measure a flow rate of 16.0 gpm with precision of ±1 gpm.

3. Electrical Equipment

A. AC power supply, 115v, 3 phase, 400 ±5 Hz, that can keep a minimum terminal voltage of 104v.

B. DC power supply, 28v (22.0-29.5v permitted range), 12a.

C. A27081-3 Test box (part of A27081-1 readout equipment), that can display torque readings and can give a connection for the digital counter.

D. A27081-8, -10 Cable assemblies (part of the A27081-1 readout equipment), used to connect the dynamic torque transducer and the tachometer to the A27081-3 test box.

E. A27081-4 Test box (part of A27081-2 control equpment), that can operate the control valve and the alternnate motor.

F. Fluke 1900A Digital counter, that is used with the A27081-3 test box to give indications of rpm and number of revolutions. *[1]

G. North Atlantic Industries Model 2250 phase sensitive voltmeter (±2% of full scale). *[2]

H. AC power supply, 28v ±100mV, 400 ±5 Hz.

*[1] John Fluke Mfg Co. Inc.
P.O. Box C9090, M/S 263C
Everett, Washington 98206.

*[2] North Atlantic Instruments, Inc.
Bohemia, New York
Phone 631-567-1100
Fax 631-567-1823

ILLUSTRATED PARTS LIST

1. This section lists and illustrates replaceable or repairable component parts. The Illustrated Parts Catalog contains a complete explanation of the Boeing part numbering system.

2. Indentures show parts relationships as follows:

    Assembly
      Detail Parts for Assembly
      Subassembly
      Attaching Parts for Subassembly
        Detail Parts for Subassembly

    Detail Installation Parts (Included only if installation parts may be returned to shop as part of assembly)

3. One use code letter (A, B, C, etc.) is assigned in the EFF CODE column for each variation of top assembly. All listed parts are used on all top assemblies except when limitations are shown by use code letter opposite individual part entries.

4. Letter suffixes (alpha-variants) are added to item numbers for optional parts, Service Bulletin modification parts, configuration differences (Except left- and right-hand parts), product improvement parts, and parts added between two sequential item numbers. The alpha-variant is not shown on illustrations when appearance and location of all variants of the part is the same.

5. Service Bulletin modifications are shown by the notations PRE SB XXXX and POST SB XXXX.

    A. When a new top assembly part number is assigned by Service Bulletin, the notations appear at the top assembly level only. The configuration differences at detail part level are then shown by use code letter.

    B. When the top assembly part number is not changed by the Service Bulletin, the notations appear at the detail part level.

6. Parts Interchangeability

Optional (OPT)	The parts are optional to and interchangeable with other parts having the same item number.
Supersedes, Superseded By (SUPSDS, SUPSD BY)	The part supersedes and is not interchangeable with the original part.
Replaces, Replaced By (REPLS, REPLD BY)	The part replaces and is interchangeable with, or is an alternate to, the original part.

VENDORS

S4096 SHIMADZU SEISAKUSHO
KYOTO,JAPAN
FORMERLY VZ2239

15653 KAYNAR TECHNOLOGY KAYNAR DIV
800 SOUTH STATE COLLEGE BLVD PO BOX 3001
FULLERTON, CALIFORNIA 92831-3001

18076 UMPCO, INCORPORATED
7100 LAMPSON AVENUE PO BOX 5158
GARDEN GROVE, CALIFORNIA 92645

22175 J AND M PRODUCTS INC.
2435 NORTH NAOMI
BURBANK, CALIFORNIA 91504-3425

34270 GARRETT HYDRAULIC DIV OF GARRETT CORP
2150 NORTHWEST 62ND STREET
FT LAUDERDALE, FLORIDA 33309

57771 STIMPSON EDWIN B. COMPANY INC
900 SYLVAN AVENUE
BAYPORT, NEW YORK 11705-1012

62554 SIMMONDS MECAERO FASTENERS INC
1734 SEQUOIA AVENUE
ORANGE, CALIFORNIA 92668

83930 IMO DELAVAL INC ADEL FASTENERS DIV
1444 WASHINGTON AVENUE PO BOX 7727
HUNTINGTON, WEST VIRGINIA 25778

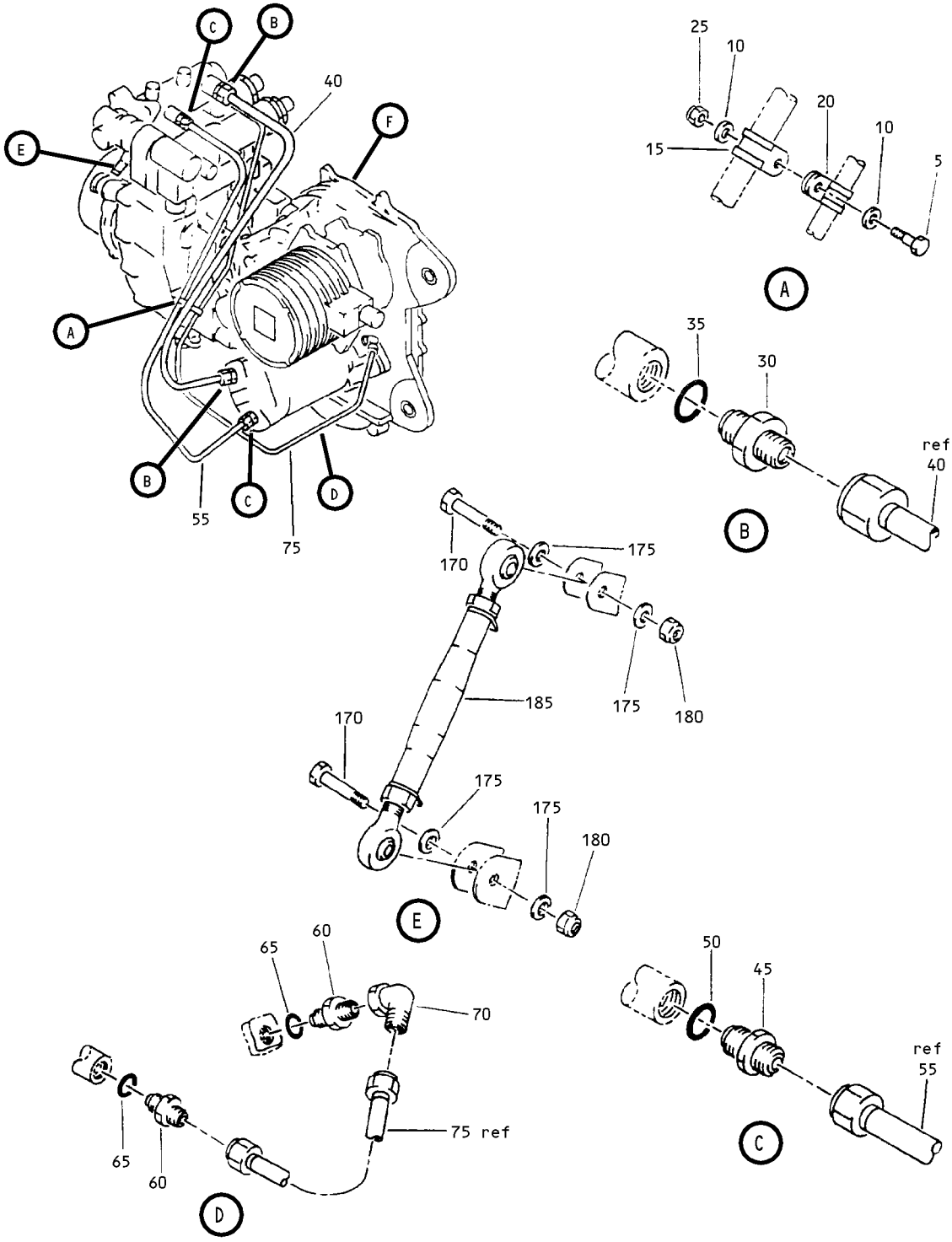
84971 TA MANUFACTURING CORP SUB OF CRITON CORP
375 WEST ARDEN AVENUE PO BOX 2500
GLENDALE, CALIFORNIA 91209-2500

98889 TELEFLEX CONTROL SYSTEMS
1950 WILLIAMS DRIVE
OXNARD, CALIFORNIA 93030

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
AN814-4DL		1	160	1
AS1581T10		1	56	2
AS1581T12		1	41	2
BACB28AK04-335		1	205	2
BACB30LE5K6		1	130A	1
BACB30MR5HK13		1	130	1
BACB30MR5K13		1	125	3
BACB30MR5K14		1	85	2
BACB30MR5K16		1	80	2
BACB30NR4K13		1	170	2
BACB30NR4K26		1	245	2
BACB30NR4K64		1	190	2
BACC10HS06		1	20	1
BACC10HS10		1	15	1
BACE21AW0606W		1	70	1
BACJ40A20-12		1	285	1
BACJ40A22-9		1	115	1
BACJ40A31-9		1	110	1
BACN10JC3CD		1	25	1
		1	275	1
BACN10JC4CD		1	180	2
		1	260	2
BACN10YA10		1	57	2
BACN10YA12		1	42	2
BACN10YL06		1	77	2
BACN10YR4CD		1	210	2
		1	240	1
BACN10YR5CD		1	105	4
		1	145	4
BACP20B65		1	295	2
BACS10BX06HP		1	76	2
BACW10BP4CD		1	250	2
BACW10BP4DP		1	255	2
BACW10BP5CD		1	90	4
		1	135	4
BACW10BP5DP		1	100	4
		1	140	4
BAC27TCT0286		1	315	1
BAC27TCT0304		1	320	1
D2587PB		1	295	2
H52732-4CD		1	210	2
		1	240	1
H52732-5CD		1	105	4
		1	145	4
MS21902-10T		1	45	2

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
MS21902-12T		1	30	2
MS21902D6		1	60	2
NAS1149D0316H		1	270	3
NAS1149D0332J		1	10	2
NAS1149D0416H		1	235	2
NAS1149D0416J		1	175	4
		1	195	2
NAS1149D0416P		1	200	2
NAS1149D0463H		1	232	2
NAS1149D0463J		1	230	1
NAS1149D0516H		1	95	2
NAS1611-019A		1	155	1
NAS1612-10A		1	50	2
NAS1612-12A		1	35	2
NAS1612-4A		1	165	1
NAS1612-6A		1	65	2
NAS1801-3-8		1	265	1
NAS5504H19		1	227	1
NAS6604-26		1	225	1
NAS6703-5		1	5	1
NAS6706-64		1	190A	2
OPT4134T100-1		1	120	1
PLH54CD		1	210	2
		1	240	1
PLH55CD		1	105	4
		1	145	4
S256T003-1		1	150	1
S256T005-9		1	215	1
S256T011-2		1	120	1
S500-10		1	15	1
S500-6		1	20	1
025029-06		1	20	1
025029-10		1	15	1
251T0100-306		1	185	1
256T2760-9		1	305A	1
256T3104-1		1	290	1
256T5124-15		1	310	1
256T5124-16		1	310A	1
256T5124-17		1	310B	1
256T5505-1		1	1A	RF
256T5505-101		1	75	1
256T5505-102		1	55	1
256T5505-103		1	40	1
256T5505-2		1	1B	RF
256T5505-3		1	1C	RF
256T5510-1		1	300	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
256T5510-2		1	300A	1
4100362-1		1	150	1
4134T100-3		1	120	1
44LC17H6PB		1	20	1
490-10RPB		1	15	1
69B82604-15		1	280	1
732-18560-07		1	215	1
732-18560-08		1	215A	1



Outboard Leading Edge Slat Drive Power Drive Unit Assembly
Figure 1 (Sheet 1)

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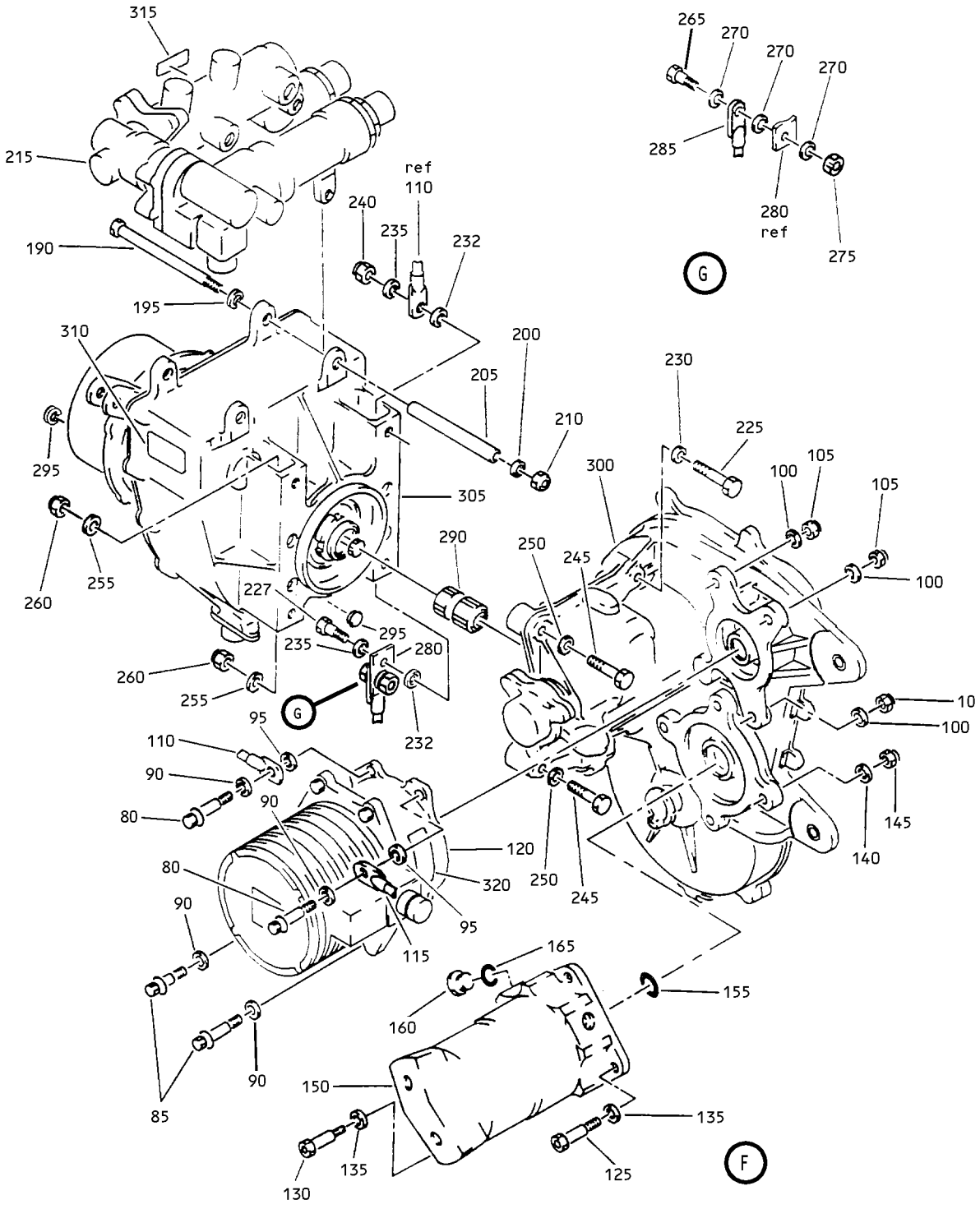

Outboard Leading Edge Slat Drive Power Drive Unit Assembly
Figure 1 (Sheet 2)

K25538

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	-1A	256T5505-1		UNIT ASSY-PWR DRIVE OUTBD LEADING EDGE SLAT DRIVE	A	RF
R	-1B	256T5505-2		UNIT ASSY-PWR DRIVE OUTBD LEADING EDGE SLAT DRIVE	B	RF
R	-1C	256T5505-3		UNIT ASSY-PWR DRIVE OUTBD LEADING EDGE SLAT DRIVE	C	RF
	5	NAS6703-5		.BOLT		1
	10	NAS1149D0332J		.WASHER		2
	15	025029-10		.CLAMP- (V84971) (SPEC BACC10HS10) (OPT 490-10RPB (V83930)) (OPT S500-10 (V18076))		1
	20	S500-6		.CLAMP- (V18076) (SPEC BACC10HS06) (OPT 025029-06 (V84971)) (OPT 44LC17H6PB (V22175))		1
	25	BACN10JC3CD		.NUT		1
	30	MS21902-12T		.UNION		2
	35	NAS1612-12A		.PACKING		2
R	40	256T5505-103		.TUBE ASSY		1
R	-41	AS1581T12		..SLEEVE		2
R	-42	BACN10YA12		..NUT		2
	45	MS21902-10T		.UNION		2
	50	NAS1612-10A		.PACKING		2
R	55	256T5505-102		.TUBE ASSY-		1
R	-56	AS1581T10		..SLEEVE		2
R	-57	BACN10YA10		..NUT		2
	60	MS21902D6		.UNION		2
	65	NAS1612-6A		.PACKING		2
	70	BACE21AW0606W		.ELBOW		1
R	75	256T5505-101		.TUBE ASSY-		1
R	-76	BACS10BX06HP		..SLEEVE		2
R	-77	BACN10YL06		..NUT		2
	80	BACB30MR5K16		.BOLT		2
	85	BACB30MR5K14		.BOLT		2
	90	BACW10BP5CD		.WASHER		4
	95	NAS1149D0516H		.WASHER		2
	100	BACW10BP5DP		.WASHER		4

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	105	H52732-5CD		.NUT-		4
				(V15653)		
				(SPEC BACN10YR5CD)		
				(OPT PLH55CD		
				(V62554))		
	110	BACJ40A31-9		.JUMPER ASSY		1
	115	BACJ40A22-9		.JUMPER ASSY		1
	120	4134T100-3		.MOTOR-ELECT		1
				(V98889)		
				(SPEC S256T011-2)		
				(OPT4134T100-1		
				(V98889))		
	125	BACB30MR5K13		.BOLT		3
	130	BACB30MR5HK13		.BOLT	A	1
R	-130A	BACB30LE5K6		.BOLT	B,C	1
	135	BACW10BP5CD		.WASHER		4
	140	BACW10BP5DP		.WASHER	A	4
	145	H52732-5CD		.NUT-	A	4
				(V15653)		
				(SPEC BACN10YR5CD)		
				(OPT PLH55CD		
				(V62554))		
	150	4100362-1		.MOTOR-HYDR		1
				(V34270)		
				(SPEC S256T003-1)		
	155	NAS1611-019A		.PACKING		1
	160	AN814-4DL		.PLUG AND BLEEDER		1
	165	NAS1612-4A		.PACKING		1
	170	BACB30NR4K13		.BOLT		2
	175	NAS1149D0416J		.WASHER		4
	180	BACN10JC4CD		.NUT		2
R	185	251T0100-306		.ROD ASSY-		1
				(REF CMM 27-00-11)		

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	190	BACB30NR4K64		.BOLT-		2
				(OPT ITEM 190A)		
	-190A	NAS6706-64		.BOLT-		2
				(OPT ITEM 190)		
	195	NAS1149D0416J		.WASHER		2
	200	NAS1149D0416P		.WASHER		2
	205	BACB28AK04-335		.BUSHING		2
	210	H52732-4CD		.NUT-		2
				(V15653)		
				(SPEC BACN10YR4CD)		
				(OPT PLH54CD		
				(V62554))		
	215	732-18560-07		.MODULE-CONT VALVE	A,C	1
				(VS4096)		
				(SPEC S256T005-9)		
R	-215A	732-18560-08		.MODULE-CONT VALVE	B	1
				(VS4096)		
	220	BACC45FM16-10P		DELETED		
	225	NAS6604-26		.BOLT		1
	227	NAS5504H19		.BOLT		1
	230	NAS1149D0463J		.WASHER		1
	232	NAS1149D0463H		.WASHER		2
	235	NAS1149D0416H		.WASHER		2
	240	H52732-4CD		.NUT-		1
				(V15653)		
				(SPEC BACN10YR4CD)		
				(OPT PLH54CD		
				(V62554))		
	245	BACB30NR4K26		.BOLT		2
	250	BACW10BP4CD		.WASHER		2
	255	BACW10BP4DP		.WASHER		2
	260	BACN10JC4CD		.NUT		2
	265	NAS1801-3-8		.SCREW		1

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	270	NAS1149D0316H		.WASHER		3
	275	BACN10JC3CD		.NUT		1
R	280	69B82604-15		.SUPPORT		1
	285	BACJ40A20-12		.JUMPER ASSY		1
R	290	256T3104-1		.SHAFT-QUILL		1
	295	D2587PB		.PLUG BUTTON- (V57771) (SPEC BACP20B65)		2
	300	256T5510-1		.GEARBOX ASSY- (REF CMM 27-81-73)	A	1
R	-300A	256T5510-2		.GEARBOX ASSY- (REF CMM 27-81-73)	B,C	1
	305	256T2760-6		DELETED		
R	305A	256T2760-9		.UNIT ASSY-CONT (REF CMM 27-81-55)		1
	310	256T5124-15		.NAMEPLATE	A	1
R	-310A	256T5124-16		.NAMEPLATE	B	1
R	-310B	256T5124-17		.NAMEPLATE	C	1
	315	BAC27TCT0286		.MARKER-VALVE MODULE		1
	320	BAC27TCT0304		.MARKER-ALTERNATE MOTOR		1

- Item Not Illustrated